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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,878	02/27/2004	Daniel Fiat	7628-91548	7128

7590 06/08/2006

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EXAMINER

VARGAS, DIXOMARA

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

HJA

Office Action Summary

Application No.

10/788,878

Applicant(s)

FIAT, DANIEL

Examiner

Dixomara Vargas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 38-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 3,085,195) further in view of F.A. Nelson (US 3,348,137).

With respect to claims 38 and 41, Anderson discloses a method of multinuclear magnetic resonance spectroscopy and imaging comprising the steps of: generating an exciter signal (by probe #16 in Figure 3); synthesizing a plurality of synthesized signals appropriate to the atomic species to be studied (Figure 3, #21); mixing the exciter signal with the plurality of synthesized signals, creating a plurality of generated signal (Column 6, lines 14-32); exciting a plurality of atoms having different atomic weights with the plurality of generated signals; receiving a plurality of experimental signals within different Larmor frequency ranges from atoms excited by the plurality of generated signals (Columns 2-3, lines 12-23 and 22-42 respectively).

In addition, Anderson discloses the claimed invention as stated above except for the step of decoupling the atoms. However, Nelson discloses the step of decoupling the atoms (Column 2, lines 19-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to decouple the atoms as taught by Nelson with Anderson's method

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of multinuclear MR spectroscopy and imaging for the purpose of reducing the number of resonance lines and peaks as taught by Nelson (Column 1, lines 13-28).

3. With respect to claims 39 and 42, Anderson discloses the step of mixing the received experimental signals with a plurality of corresponding synthesized signals, thereby creating a plurality of final signals (Column 6, lines 14-32).

4. With respect to claims 40 and 43, Anderson discloses the step of exciting atoms with the exciter signal; and receiving an exciter experimental signal (Column 3, lines 22-43).

5. Claims 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 3,085,195) and F.A. Nelson (US 3,348,137) in view of Keren (US 5,160,891 A).

With respect to claims 44-48, Anderson and Nelson disclose the claimed invention as stated above in paragraph 3 except for the step of digitizing the final signals by separated devices. However, Keren discloses the step of digitizing the final signals by separated devices (Figure 1, #42-#46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to digitizing the signals by separated devices as taught by Keren with Anderson and Nelson's method of multinuclear magnetic resonance spectroscopy and imaging for the purpose of sending a digital signal from the processor to the digital display means.

Response to Arguments

6. Applicant's arguments with respect to claims 38-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dixomara Vargas
Art Unit 2859
June 2, 2006



Diego Gutierrez
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